AF

TRANSMITTAL LETTER (General - Patent Pending)	Docket No. 17264

In Re Application Of: **Takeaki Nakamura**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/714,766	November 17, 2003	Matthew J. Kasztejna	23389	3739	3358

Title: **REMOTE OPERATION SUPPORT SYSTEM AND METHOD**

COMMISSIONER FOR PATENTS:

Transmitted herewith is:

SUPPLEMENTAL APPEAL BRIEF

in the above identified application.

- ☒ No additional fee is required.
- ☐ A check in the amount of is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. **19-1013/SSMP** as described below.
  - ☐ Charge the amount of
  - ☐ Credit any overpayment.
  - ☒ Charge any additional fee required.
- ☐ Payment by credit card. Form PTO-2038 is attached.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Signature

Thomas Spinelli
Registration No.: 39,533

Dated: **September 25, 2006**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on **9/25/2006**.
(Date)

Thomas Spinelli

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

cc:

SUPPLEMENTAL APPEAL BRIEF

Thomas Spinelli
Attorney for Appellant
Registration No. 39,533

SCULLY SCOTT MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

TABLE OF CONTENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant: Takeaki Nakamura **Examiner:** Matthew J. Kasztejna

Serial No: 10/714,766 **Art Unit:** 3739

Filed: November 17, 2003 **Docket:** 17264

For: REMOTE OPERATION SUPPORT SYSTEM AND METHOD **Dated:** September 25, 2006

Conf. No.: 3358

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF

Sir:

I. INTRODUCTION

Pursuant to 35 U.S.C. § 134 and 37 C.F.R. § 41.37, and in response to the Notice of Non-Compliant Appeal Brief issued on August 25, 2006, entry of this Supplemental Appeal Brief in support of the Notice of Appeal filed March 8, 2006 in the above-identified matter is respectfully requested. This paper is submitted as a brief setting forth the authorities and arguments upon which Appellants rely in support of the appeal from the Final Rejection of Claims 1-21 in the above-identified patent application on September 13, 2005.

In the Notice of Non-Compliant Appeal Brief, the Examiner argues that the brief does not present an argument under a separate heading for each ground of rejection on appeal

(citing 37 CFR 41.37(c)(1)(vii)). In response to the Notice of Non-Compliant Appeal Brief and a telephonic Interview with the Examiner on September 25, 2006, section V(A) has been expanded to address each rejected claim individually and Section IX has been added between original sections XIII and IX (and original section IX (Conclusion) renumbered section X). New section IX being titled "Arguments" per the Examiner's instructions in the telephonic interview.

II. STATEMENT OF REAL PARTY OF INTEREST

The real party of interest in the above-identified patent application is Olympus Corporation.

III. STATEMENT OF RELATED PROCEEDINGS

There are no pending appeals or interferences related to this application to Appellant's knowledge. See Appendix C.

IV. STATEMENT OF SUPPORTING DOCUMENTS

No affidavits, documents, or other evidence is being entered into the record in support of this Appeal. See Appendix B.

V. STATEMENT OF CLAIM STATUS AND APPEALED CLAIMS

A. Claim Status

Claim 1 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,602,185 to

Uchikubo (hereinafter "Uchikubo) in view of U.S. Patent No. 6,659,939 to Moll et al. (hereinafter "Moll").

Claim 2 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 3 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 4 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 5 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 6 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 7 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 8 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 9 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 10 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 11 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 12 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 13 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 14 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 15 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 16 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 17 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 18 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 19 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 20 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

Claim 21 stands rejected based on 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

B. Appealed Claims

Claims 1-21 are appealed, a clean copy of which are attached hereto in Appendix A along with the canceled and allowed claims.

VI. STATEMENT OF AMENDMENT STATUS

The claims were not amended in the Response to the

Final Rejection filed Janaury 11, 2006.

VII. STATEMENT/EXPLANATION OF INVENTION

The present application, U.S. patent application Serial No. 10/714,766 was filed on November 17, 2003, originally included Claims 1-20.

In a Preliminary Amendment, filed June 16, 2004, the specification was amended to correct an error therein, to correct inconsistencies with the Drawings and to add new claim 21 to further define the patentable invention.

In an Official Action dated February 24, 2005, the Examiner rejected claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

In a Response under 37 C.F.R. § 1.111, filed June 15, 2005, the Applicant respectfully traversed the Examiner's rejection under 35 U.S.C. § 103(a) without amendment to the claims, with the exception that claim 1 was amended to broaden the scope thereof by clarifying that the first transmission/reception device recited therein transmits the image signal supplied from the imaging device to the second control system, transmits patient information regarding the patient under operation to the third control system, and receives support information from the second control system.

In a Final Official Action, issued September 13, 2005, the Examiner reiterated the rejection from the previous Official Action of February 24, 2005. Specifically, the

Examiner again rejected claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Uchikubo in view of Moll.

In a Response under 37 C.F.R. § 1.116, filed Janaury 11, 2006, the Applicant again respectfully traversed the Examiner's rejection under 35 U.S.C. § 103(a) without amendment to the claims.

Subsequent to the Response under 37 C.F.R. § 1.116, the Examiner issued an Advisory Action issued on January 30, 2006. In the Advisory Action, the Examiner "recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art" (citations omitted)(see page 2 of the Advisory Action). The Examiner then goes on to argue that the "examiner does not argue that the features are inherently disclose [sic] in Moll, but rather that Moll is capable of such features" (*Id.*).

Subsequent to the Advisory Action issued on January 30, 2006, an Appeal Brief was filed on March 8, 2006.

Consequently, Claims 1-21 are the claims on appeal. A copy of the rejected claims is attached hereto in the Appendix.

The invention with respect to claim 1 comprises a remote operation support system (e.g., Reference Numeral 1, Figures 1-3 and accompanying specification from page 8, line 4

to 18, line 9) comprising: a first control system (e.g., reference numeral 5 in Figures 1-3 and accompanying specification from page 8, lines 16-22) disposed in an operating room (e.g., reference numeral 2 in Figures 1-3 and accompanying specification at page 8, lines 4-15); a second control system (e.g., reference numeral 6 in Figures 1-3 and accompanying specification from page 8, line 23 to page 9, line 22) disposed in a primary support room (e.g., reference numeral 3 in Figures 1-3 and accompanying specification at page 8, lines 4-15); and a third control system (e.g., reference numeral 8 in Figures 1-3 and accompanying specification at page 8, lines 4-22)disposed in at least one secondary support room (e.g., reference numeral 4 in Figures 1-3 and accompanying specification at page 8, lines 4-15), the first to third control systems being connected to each other through communication lines (e.g., reference numerals 7, 9 and 10 in Figures 1-3 and accompanying specification from page 8, line 16 to page 9, line 2), wherein the first control system comprises: an imaging device for imaging a portion to be treated of a patient under operation to obtain an image signal (e.g., reference numerals 2A in Figures 1-3 and 11 in Figure 4 and accompanying specification at page 9, lines 22-25, page 11, lines 4-11 and from page 21, line 24 to page 22, line 9); a first transmission/reception device for transmitting the image signal supplied from the imaging device to the second control

system (e.g., reference numerals 2B and 2B1 in Figures 1-3 and accompanying specification at page 9, lines 22-25 and page 11, lines 12-22), transmitting patient information regarding the patient under operation to the third control system (e.g., specification page 11, lines 12-22), and receiving support information from the second control system (e.g., specification page 13, lines 3-23); and a reproduction device for displaying the image signal and reproducing the support information (e.g., specification from page 10, line 1 to page 11, line 3), the third control system (e.g., reference numeral 4 in Figures 1-3 and accompanying specification at page 8, lines 4-15) comprises: a patient-information processing device for processing the patient information transmitted from the first control system to obtain the result of the processing (e.g., 4A in Figures 1-3 and accompanying specification from page 12, line 7 to page 13, line 23); and a second transmission/reception device for receiving the patient information from the first transmission/reception device of the first control system and transmitting information indicating the processing result, obtained by the patient-information processing device, as secondary support information to the second control system (e.g., 4B, 4B1 and 4B2 in Figures 1-3 and accompanying specification from page 12, line 7 to page 13, line 23), and the second control system comprises: an integration device for generating primary support information,

used to support an operator in the operating room upon operating, on the basis of the secondary support information transmitted from the third control system and the image signal transmitted from the first control system (e.g., reference numeral 3B in Figures 1-3 and accompanying specification from page 14, line 6 to page 15, line 2); and a third transmission/reception device for receiving the image signal sent from the first control system and the secondary support information sent from the third control system, and transmitting the primary support information generated through the integration device to the first control system (e.g., reference numerals 3A and 3A1 in Figures 1-3 and accompanying specification from page 14, line 6 to page 14, line 15).

The invention with respect to claim 2 comprises the system of Claim 1, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication (Figure 2, reference numerals 7 and 10), and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system (e.g., Figure 2, reference numeral 9).

The invention with respect to claim 3 comprises system of Claim 1, wherein the first and second control

systems, the first and third control systems, and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication (e.g., Figure 3, reference numerals 7, 9A and 10).

The invention with respect to claim 4 comprises system of Claim 1, wherein when there are a plurality of third control systems, the integration device of the second control system generates the integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and the image signal sent from the first control system, and transmits the generated information to the first control system (e.g., specification from page 13 line 24 to page 14, line 5).

The invention with respect to claim 5 comprises system of Claim 3, wherein the first transmission/reception device of the first control system is connected to the second and third transmission/reception devices through a switch for switching between the second and third control systems (e.g., specification from page 24, line 23 to page 25, line 7 and at page 37 lines 10-20).

The invention with respect to claim 6 comprises system of Claim 1, wherein the imaging device includes an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity (e.g., reference

numeral 11 and accompanying specification at page 22, lines 10-17), and the first control system further comprises: an image processing unit for converting the image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit (e.g., Figure 4 and the specification at page 23, lines 7-19).

The invention with respect to claim 7 comprises system of Claim 6, wherein the first control system further comprises: a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and a first control unit for controlling at least the visual-field control unit, at least one of the second and third control systems further includes: a second control unit for generating an instruction signal to control the visual-field control unit to the first control unit, and the instruction signal generated through the second control unit is transmitted to the first control unit to control the imaging area or the viewing direction of the endoscopic imaging device (e.g., Figure 4 and the specification from page 23, line 20 to page 24, line 2).

The invention with respect to claim 8 comprises a remote operation support method using a system including a

first control system disposed in an operating room, a second control system disposed in a primary support room, and a third control system disposed in at least one secondary support room, the first to third control systems being connected to each other through communication lines (see claim 1 for exemplary support in the disclosure for system), the method comprising: a patient-information obtaining step of obtaining patient information through the first control system (e.g., Figure 7, step S1 and accompanying specification at page 18, lines 14-19); a first transmitting step of transmitting, by the first control system, the patient information obtained in the patient-information obtaining step to the third control system (e.g., Figure 7, steps S2 and S3 and accompanying specification from page 18, line 19 to page 19, line 5); a first receiving step of receiving, by the third control system, the patient information transmitted in the first transmitting step (e.g., Figure 7, step S6 and accompanying specification at page 19, lines 18-21); a second transmitting step of transmitting secondary support information based on the patient information from the third control system to the second control system(e.g., Figure 7, step S5 and accompanying specification at page 19, lines 13-17); a second receiving step of receiving, by the second control system, the secondary support information transmitted in the second transmitting step (e.g., specification at page 19, lines 13-17); a third transmitting

step of transmitting primary support information based on the secondary support information from the second control system to the first control system (e.g., Figure 7, step S8 and accompanying specification at page 20, lines 1-5); a third receiving step of receiving, by the first control system, the primary support information transmitted in the third transmitting step (e.g., Figure 7, step S9 and accompanying specification at page 20, lines 14-16); and a reproducing step of reproducing, by the first control system, the primary support information received in the third receiving step as an image or a voice (e.g., Figure 7, step S10 and accompanying specification at page 20, lines 17-19).

The invention with respect to claim 9 comprises the method of Claim 8, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication, and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system (see claim 2 for exemplary support in the disclosure).

The invention with respect to claim 10 comprises the method of Claim 8, wherein the first and second control systems, the first and third control systems, and the second and third control systems are connected to each other through

the respective communication lines capable of realizing two-way communication (see claim 3 for exemplary support in the disclosure).

The invention with respect to claim 11 comprises the system[1] of Claim 8, wherein when there are a plurality of third control systems, an integration device of the second control system generates integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and an image signal sent from the first control system, and transmits the generated information to the first control system (see claim 4 for exemplary support in the disclosure).

The invention with respect to claim 12 comprises the system of Claim 10, wherein a first transmission/reception device of the first control system is connected to second and third transmission/reception devices through a switch for switching between the second and third control systems (see claim 5 for exemplary support in the disclosure).

The invention with respect to claim 13 comprises the system of Claim 8, wherein the first control system comprises: an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity; an image processing unit for converting an image signal, obtained by photoelectric conversion through the imaging element of the

1 The Applicants acknowledge an error in the preamble of claim 11 ("system" should be --method--) that will be corrected after the present appeal is decided.

endoscopic imaging device, into a video signal; and a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit (see claim 6 for exemplary support in the disclosure).

The invention with respect to claim 14 comprises the system of Claim 13, wherein the first control system further comprises: a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and a first control unit for controlling at least the visual-field control unit, and the method further includes: a step of controlling the imaging area or the viewing direction of the endoscopic imaging device on the basis of an instruction signal to control the visual-field control unit, the instruction signal being transmitted from at least one of the second and third control systems (see claim 7 for exemplary support in the disclosure).

The invention with respect to claim 15 comprises a remote operation support method using a system including a first control system disposed in an operating room, a second control system disposed in a primary support room, and a third control system disposed in at least one secondary support room, the first to third control systems being connected to each other through communication lines (see claim 1 for exemplary support in the disclosure of system), the method comprising: an imaging step of imaging a portion to be treated of a patient

under operation in the operating room to obtain an image signal; a first transmitting step of transmitting the image signal obtained in the imaging step from the first control system to the second control system; a second transmitting step of transmitting patient information regarding the patient under operation from the first control system to the third control system; a first receiving step of receiving, by the first control system, support information from the second control system; a reproducing step of displaying, by the first control system, the image signal and reproducing, thereby, the support information to support an operator; a second receiving step of receiving, by the third control system, the patient information transmitted from the first control system; a patient-information processing step of processing, by the third control system, the patient information transmitted from the first control system to obtain the result of the processing; a third transmitting step of transmitting the processing result, obtained in the patient-information processing step, as secondary support information from the third control system to the second control system; a third receiving step of receiving, by the second control system, the image signal sent from the first control system and the secondary support information sent from the third control system; an integrating step of generating, by the second control system, primary support information, used to support the operator in the operating room

upon operating, on the basis of the secondary support information sent from the third control system and the image signal sent from the first control system (e.g., step s7 in Figure 7 and accompany specification from page 19, line 21 to page 20, line 5); and a fourth transmitting step of transmitting the primary support information, generated in the integrating step, from the second control system to the first control system (see claim 8 for exemplary support in the disclosure for method steps in addition to that indicated).

The invention with respect to claim 16 comprises the method of Claim 15, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication, and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system (see claim 1 for exemplary support in the disclosure).

The invention with respect to claim 17 comprises the method of Claim 15, wherein the first and second control systems, the first and third control systems, and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication (see claim 2 for exemplary support in the disclosure).

The invention with respect to claim 18 comprises the method of Claim 15, wherein when there are a plurality of third control systems, an integration device of the second control system generates integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and an image signal sent from the first control system, and transmits the generated information to the first control system (see claim 3 for exemplary support in the disclosure).

The invention with respect to claim 19 comprises the method of Claim 15, wherein the first control system comprises: an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity; an image processing unit for converting an image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit (see claim 6 for exemplary support in the disclosure).

The invention with respect to claim 20 comprises the method of Claim 19, wherein the first control system further comprises: a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and a first control unit for controlling at least the visual-field control unit, and the method further includes: a

step of controlling the imaging area or the viewing direction of the endoscopic imaging device on the basis of an instruction signal to control the visual-field control unit, the instruction signal being transmitted from at least one of the second and third control systems (see claim 7 for exemplary support in the disclosure).

The invention with respect to claim 21 comprises the system of Claim 1, wherein the first and third control systems are connected to each other through the communication line capable of realizing one-way communication through the first control system to the third control system (e.g., Figure 1, reference numeral 9).

VIII. STATEMENT/LIST OF EACH GROUND FOR REVIEW

The Rejection of claims 1-21, on appeal, under 35 U.S.C. § 103(a), as being unpatentable over Uchikubo in view of Moll is improper.

IX. ARGUMENTS

A. CLAIMS 1, 8 and 15

In the Applicant's response dated June 15, 2005, the Applicant argued that (i) there is no motivation or suggestion to combine the remote surgery support system of Uchikubo with the tele-surgical system of Moll and (ii) the combination of Uchikubo and Moll does not show one or more secondary support rooms for receiving and processing information from the operating room and transmitting a processing result (as

secondary support information) to a primary support room (which is not the operating room). The Applicant made similar arguments in the response dated January 11, 2006. The Examiner responds to the Applicant's arguments in the Advisory Action of January 30, 2006, by recognizing "that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art" (citations omitted)(see page 2 of the Advisory Action). However, the Examiner then goes on to recognize that although the features are not inherently disclosed in Moll, "Moll is capable of such features" (*Id.*).

i. NO MOTIVATION OR SUGGESTION TO COMBINE UCHIKUBO AND MOLL

The Examiner has responded in the Final Official Action by arguing motivations which are not related to the objectives of the present invention, namely to prevent the operator in the operating room from receiving all of the information units from supporting rooms. Thus, the Applicant respectfully submits that the motivation cited by the Examiner for combination of the Uchikubo and Moll references is not proper because the inventors of the Uchikubo and Moll references were faced with different problems. "35 U.S.C. § 103(a) requires … a showing that an artisan of ordinary skill

in the art at the time of the invention, **confronted by the same problems as the inventor** and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combined then in the claimed manner." *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005) (emphasis added) (citing *Ruiz v. A.B. Chance Co.*, 357, F.3d 1270, 1275 (Fed. Cir. 2004). Since the Uchikubo and Moll references are directed to solving different problems, those of ordinary skill in the art could not have been motivated to combine the teachings thereof. Uchikubo is simply directed to making it possible to check or display the state of a surgical instrument and/or patient information in a remote place (column 1, lines 51-60). Moll is simply directed to methods for coupling input devices to robotic manipulator arms during surgery (see column 1, lines 26-31). Neither of such objectives are even remotely related to the objective of the present invention, namely, to prevent the operator in the operating room from receiving all of the information units from supporting rooms. Therefore, unnecessary information can be "filtered" and/or integrated by a single primary support room, which prevents the operator from receiving unnecessary information (see page 9, lines 13-21 of the present disclosure) and also leads to an operation that is performed correctly, rapidly and reliably (see page 16, lines 4-8 and page 18, lines

8-9 of the present disclosure). Neither Uchikubo nor Moll suggest such problems nor contemplate their solution.

The U.S. Court of Appeals for the Federal Circuit (the "Federal Circuit") has time and time restated the legal test applicable to rejections under 35 U.S.C. § 103(a) (*see, In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir., July 15, 1998)). The Court stated:

> [V]irtually all [inventions] are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." To prevent the use of hind sight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. The Board [of Appeals] did not, however, explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination. Instead, the Board merely invoked the high level of skill in the field of the art. If such a rote indication could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever, experience a patentable technical advance. Instead, in complex scientific fields, the Board could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection. To counter this potential weakness in the obviousness construct **the suggestion to combine requirements stands as a critical**

> **safeguard against hindsight analysis and rote application of the legal test for obviousness.**
>
> *In re Rouffet*, 47 USPQ2d 1457-58 (Fed. Cir., July 15, 1998) (citations omitted, emphasis added).

More recently, the Federal Circuit again dealt with what is required to show a motivation to combine references under 35 U.S.C. § 103(a). In this case the court reversed the decision of the Board of appeals stating:

> [R]ather then pointing to specific information in Holiday or Shapiro that suggest the combination..., the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other-in combination with each other... described all of the limitations of the pending claims. Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the ... references, nor does the Board make specific-or even inferential-findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any factual findings that might serve to support a proper obviousness analysis.
>
> *In re Dembiczak*, 50 USPQ2d 1614, 1618 (Fed. Cir., April 28, 1999) (citations omitted).

Thus, from both *In re Rouffet* and *In re Dembiczak* it is clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them. This the Examiner has not done. As discussed above, the Examiner lists several motivations for combining the systems of Uchikubo and Moll.

However, none of such reasons are related to the objective of the present invention. Neither Uchikubo nor Moll suggest the problems in the art addressed by the present invention nor contemplate their solution. The Examiner also fails to indicate that the art in general understood the problems in the art or contemplated a solution thereto. Therefore, those of ordinary skill in the art would not be motivated or suggested to look to Moll to combine the teachings therein with those of Uchikubo. Such a motivation or suggestion could have only been gleaned from the present disclosure upon learning of the objectives of the present invention.

Thus, the Applicant respectfully submits that the Examiner has used impermissible hindsight to reject claims 1-21 under 35 U.S.C. § 103(a). As discussed above, the Federal Circuit in *In re Rouffet* stated that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references that create the case of obviousness. The Applicant respectfully submits that the Examiner has not met this burden.

In light of the state of the law as set forth by the Federal Circuit with regard to the motivation to combine the cited references, the applicant respectfully submits that the

rejection for obviousness under 35 U.S.C. § 103(a) lacks the requisite motivation.

Thus, the rejection of claims 1-21 under 35 U.S.C. § 103(a) is improper and must be withdrawn.

ii. COMBINATION OF UCHIKUBO AND MOLL FAIL TO DISCLOSE OR SUGGEST ALL OF THE FEATURES OF THE CLAIMS

In the Final Official Action, the Examiner appears to argue that the system of Moll "is **capable** of having multiple master control rooms in which several master surgeons are available to offer support to the surgeon in the operating room" and therefore the same is inherent therein (emphasis added). The Applicant respectfully submits that the Examiner's rejection under such a basis is also improper.

Something is "inherent" in a reference where it is actually disclosed in a reference, albeit not expressly disclosed. The Examiner does not argue that the features discussed above are inherently disclosed but only that the system in Moll is **capable** of such features. Therefore, the Examiner's argument that the features are inherently disclosed in Moll is incorrect. Moll does not inherently disclose a system having multiple master control rooms in which several master surgeons are available to offer support to the surgeon in the operating room. Therefore, the combination of Uchikubo and Moll (even if such a combination was proper) does not show one or more secondary support rooms for receiving and

processing information from the operating room and transmitting a processing result (as secondary support information) to a primary support room (which is not the operating room).

In the Advisory Action, the Examiner clarifies that although such features are not inherent in Moll, Moll is capable of having such features. The Applicant respectfully submits that a reference must either teach a feature, either expressly or inherently or such feature, although not disclosed, may be known by those of ordinary skill in the art at the time of the invention (assuming the proper motivation for combining such features and/or knowledge of those in the art).

However, the Applicant knows of no authority for rejecting a claim based on a reference which is **capable of features** that are not disclosed or suggested. Thus, the Examiner does not argue that Moll discloses all of the features and, although a certain use for such features is not disclosed, the features would be capable of such use. Instead, the Examiner admits that the reference(s) do not disclose all of the features of the claims and supplies the missing feature by arguing that the reference is capable of having the feature. Thus, the Examiner has added a feature to the teaching of the Moll reference in total hindsight. The Examiner's argument is totally without merit and has no support in the United States patent law.

Thus, assuming arguendo, that the combination of Uchikubo and Moll is proper (which it is not), such a combination does not teach one or more secondary support rooms for receiving and processing information from the operating room and transmitting a processing result (as secondary support information) to a primary support room (which is not the operating room) as recited in the claims. Thus, independent claims 1, 8, and 15 are not rendered obvious by the cited references because neither the Uchikubo patent nor the Moll patent, whether taken alone or in combination, teach or suggest a remote operation support system or method having at least the features discussed above. Accordingly, claims 1, 8, and 15 patentably distinguish over the prior art and are allowable.

Lastly, although such features are not inherent in Moll, the Examiner's statement that the system of Moll is "**capable**" of such features leads Applicant to believe that the Examiner may be actually arguing that such features are obvious in light of Moll. However, one cannot base obviousness upon what a person skilled in the art **could or might try** but rather must consider what the prior art would have led a person skilled in the art to do. *In re Antonie*, 559 F.2d 618 195 USPQ 6 (CCPA, 1977). However, as discussed above, since there is no suggestion or motivation in Moll of having multiple master control rooms in which several master surgeons are available to offer support to the surgeon in the operating room, those

skilled in the art would not have been led to its teachings to solve the problems addressed by the present invention.

Withdrawal of the rejection to the independent claims 1, 8 and 15 is therefore respectfully requested.

B. CLAIMS 2-7, 9-14 and 16-21

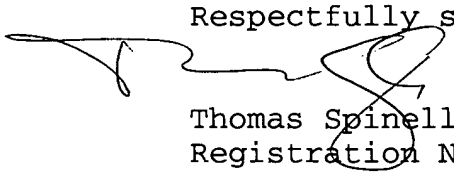
Claims 2-7, 9-14 and 16-21 being dependent upon claims 1, 8 and 15 is thus at least allowable therewith.

X. CONCLUSION

Based on the above arguments and remarks, Appellants respectfully submit that the claims of the instant invention on appeal are not obvious in light of the combination of Uchikubo and Moll. Consequently, the rejection of the claims based on such references is in error. In view of the remarks submitted hereinabove, the references applied against Claims 1-21 on appeal do not render those claims unpatentable under 35 U.S.C. § 103. Thus, Appellants submit that the § 103 rejection is in error and must be reversed.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection herewith to Deposit Account No. 19-1013/SSMP.

Respectfully submitted,



Thomas Spinelli
Registration No.: 39,533

SCULLY SCOTT MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343
TS:cm

APPENDIX A

CLAIMS ON APPEAL: CLAIMS 1-21

Application Serial No. 10/714,766

1. (Rejected) A remote operation support system comprising:

a first control system disposed in an operating room;

a second control system disposed in a primary support room; and

a third control system disposed in at least one secondary support room, the first to third control systems being connected to each other through communication lines, wherein

the first control system comprises:

an imaging device for imaging a portion to be treated of a patient under operation to obtain an image signal;

a first transmission/reception device for transmitting the image signal supplied from the imaging device to the second control system, transmitting patient information regarding the patient under operation to the third control system, and receiving support information from the second control system; and

a reproduction device for displaying the image signal and reproducing the support information,

the third control system comprises:

a patient-information processing device for processing the patient information transmitted from the first control system to obtain the result of the processing; and

a second transmission/reception device for receiving the patient information from the first transmission/reception device of the first control system and transmitting information indicating the processing result, obtained by the patient-information processing device, as secondary support information to the second control system, and

the second control system comprises:

an integration device for generating primary support information, used to support an operator in the operating room upon operating, on the basis of the secondary support information transmitted from the third control system and the image signal transmitted from the first control system; and

a third transmission/reception device for receiving the image signal sent from the first control system and the secondary support information sent from the third control system, and transmitting the primary support information generated through the integration device to the first control system.

2. (Rejected) The system according to Claim 1, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way

communication, and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system.

3. (Rejected) The system according to Claim 1, wherein the first and second control systems, the first and third control systems, and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication.

4. (Rejected) The system according to Claim 1, wherein when there are a plurality of third control systems, the integration device of the second control system generates the integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and the image signal sent from the first control system, and transmits the generated information to the first control system.

5. (Rejected) The system according to Claim 3, wherein the first transmission/reception device of the first control system is connected to the second and third transmission/reception devices through a switch for switching between the second and third control systems.

6. (Rejected) The system according to Claim 1, wherein

the imaging device includes an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity, and

the first control system further comprises:

an image processing unit for converting the image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and

a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit.

7. (Rejected) The system according to Claim 6, wherein

the first control system further comprises:

a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and

a first control unit for controlling at least the visual-field control unit,

at least one of the second and third control systems further includes:

a second control unit for generating an instruction signal to control the visual-field control unit to the first control unit, and

the instruction signal generated through the second control unit is transmitted to the first control unit to control the imaging area or the viewing direction of the endoscopic imaging device.

8. (Rejected) A remote operation support method using a system including a first control system disposed in an operating room, a second control system disposed in a primary support room, and a third control system disposed in at least one secondary support room, the first to third control systems being connected to each other through communication lines, the method comprising:

a patient-information obtaining step of obtaining patient information through the first control system;

a first transmitting step of transmitting, by the first control system, the patient information obtained in the patient-information obtaining step to the third control system;

a first receiving step of receiving, by the third control system, the patient information transmitted in the first transmitting step;

a second transmitting step of transmitting secondary support information based on the patient information from the third control system to the second control system;

a second receiving step of receiving, by the second control system, the secondary support information transmitted in the second transmitting step;

a third transmitting step of transmitting primary support information based on the secondary support information from the second control system to the first control system;

a third receiving step of receiving, by the first control system, the primary support information transmitted in the third transmitting step; and

a reproducing step of reproducing, by the first control system, the primary support information received in the third receiving step as an image or a voice.

9. (Rejected) The method according to Claim 8, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication, and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system.

10. (Rejected) The method according to Claim 8, wherein the first and second control systems, the first and third control systems, and the second and third control systems

are connected to each other through the respective communication lines capable of realizing two-way communication.

11. (Rejected) The system according to Claim 8, wherein when there are a plurality of third control systems, an integration device of the second control system generates integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and an image signal sent from the first control system, and transmits the generated information to the first control system.

12. (Rejected) The method according to Claim 10, wherein a first transmission/reception device of the first control system is connected to second and third transmission/reception devices through a switch for switching between the second and third control systems.

13. (Rejected) The method according to Claim 8, wherein

the first control system comprises:

an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity;

an image processing unit for converting an image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and

a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit.

14. (Rejected) The method according to Claim 13, wherein

the first control system further comprises:

a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and

a first control unit for controlling at least the visual-field control unit, and

the method further includes:

a step of controlling the imaging area or the viewing direction of the endoscopic imaging device on the basis of an instruction signal to control the visual-field control unit, the instruction signal being transmitted from at least one of the second and third control systems.

15. (Rejected) A remote operation support method using a system including a first control system disposed in an operating room, a second control system disposed in a primary support room, and a third control system disposed in at least one secondary support room, the first to third control systems being connected to each other through communication lines, the method comprising:

an imaging step of imaging a portion to be treated of a patient under operation in the operating room to obtain an image signal;

a first transmitting step of transmitting the image signal obtained in the imaging step from the first control system to the second control system;

a second transmitting step of transmitting patient information regarding the patient under operation from the first control system to the third control system;

a first receiving step of receiving, by the first control system, support information from the second control system;

a reproducing step of displaying, by the first control system, the image signal and reproducing, thereby, the support information to support an operator;

a second receiving step of receiving, by the third control system, the patient information transmitted from the first control system;

a patient-information processing step of processing, by the third control system, the patient information transmitted from the first control system to obtain the result of the processing;

a third transmitting step of transmitting the processing result, obtained in the patient-information

processing step, as secondary support information from the third control system to the second control system;

a third receiving step of receiving, by the second control system, the image signal sent from the first control system and the secondary support information sent from the third control system;

an integrating step of generating, by the second control system, primary support information, used to support the operator in the operating room upon operating, on the basis of the secondary support information sent from the third control system and the image signal sent from the first control system; and

a fourth transmitting step of transmitting the primary support information, generated in the integrating step, from the second control system to the first control system.

16. (Rejected) The method according to Claim 15, wherein the first and second control systems and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication, and the first and third control systems are connected to each other through the communication line capable of realizing one-way communication from the first control system to the third control system.

17. (Rejected) The method according to Claim 15, wherein the first and second control systems, the first and third control systems, and the second and third control systems are connected to each other through the respective communication lines capable of realizing two-way communication.

18. (Rejected) The method according to Claim 15, wherein when there are a plurality of third control systems, an integration device of the second control system generates integrated information on the basis of a plurality of secondary support information items obtained through the respective third control systems and an image signal sent from the first control system, and transmits the generated information to the first control system.

19. (Rejected) The method according to Claim 15, wherein

the first control system comprises:

an endoscopic imaging device having an imaging optical system and an imaging element to image a body cavity;

an image processing unit for converting an image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and

a first display for displaying an endoscopic image based on the video signal converted and generated through the image processing unit.

20. (Rejected) The method according to Claim 19, wherein

the first control system further comprises:

a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device; and

a first control unit for controlling at least the visual-field control unit, and

the method further includes:

a step of controlling the imaging area or the viewing direction of the endoscopic imaging device on the basis of an instruction signal to control the visual-field control unit, the instruction signal being transmitted from at least one of the second and third control systems.

21. (Rejected) The system according to Claim 1, wherein the first and third control systems are connected to each other through the communication line capable of realizing one-way communication through the first control system to the third control system.

APPENDIX B

EVIDENCE SUBMITTED
Application Serial No. 10/714,766

There is no evidence submitted by the Appellant in this appeal.

APPENDIX C

RELATED PROCEEDINGS
Application Serial No. 10/714,766

There are no pending appeals or interferences related to this application to Appellants' knowledge.